

CLAIMS

What is claimed is:

Claim 1. A method for treating a patient suffering from a cancerous disease comprising:

administering to said patient anti-cancer antibodies or fragments thereof produced in accordance with a method for the production of individually customized anti-cancer antibodies which are useful in treating a cancerous disease, said antibodies including a subset of antibodies or fragments thereof characterized as being cytotoxic against cells of a cancerous tissue, said subset being essentially benign to non-cancerous cells;

wherein one or more antibodies or fragments thereof selected from said subset are placed in admixture with a pharmaceutically acceptable adjuvant and are administered in an amount effective to mediate treatment of said cancerous disease;

said one or more antibodies or fragments thereof being selected from the group consisting of a 1LN-8, 4BD-1, a 4BD-3, a 4BD-6, a 4BD-9, a 4BD-13, a 4BD-18, a 4BD-20, a 4BD-25, a 4BD-26, a 4BD-27, a 4BD-28, a 4BD-32, a 4BD-37, a 4BD-50, a 6BD-1, a 6BD-3, a 6BD-5, a 6BD-11, a 6BD-25, a 7BD-7, a 7BD-12-1, a 7BD-12-2, a 7BD-13, a 7BD-14, a 7BD-19, a 7BD-21, a 7BD-24, a 7BD-29, a 7BD-30, a 7BD-31, a 7BDI-17, a 7BDI-58, a 7BDI-60, a 7BDI-62, a 5LAC2, a 5LAC4, a 5LAC20, a 5LAC23, a

1 H460-1, a H460-4, a H460-5, a H460-10, a H460-14, a H460-16-
2 1, a H460-16-2, a H460-23 and a H460-27 monoclonal antibody
3 or combinations thereof.

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5 Claim 2. The method for treating a patient suffering
6 from a cancerous disease in accordance with claim 1, wherein
7 said one or more antibodies or fragments thereof selected
8 from said subset are humanized.

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10 Claim 3. The method for treating a patient suffering
11 from a cancerous disease in accordance with claim 1
12 comprising:

13 conjugating said subset of antibodies or fragments
14 thereof with a member selected from the group consisting of
15 toxins, enzymes, radioactive compounds, and hematogenous
16 cells; and

17 administering conjugated antibodies or fragments thereof
18 to said patient;

19 wherein said conjugated antibodies are placed in
20 admixture with a pharmaceutically acceptable adjuvant and are
21 administered in an amount effective to mediate treatment of
22 said cancerous disease.

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24 Claim 4. The method of claim 3, wherein said one or
25 more antibodies or fragments thereof selected from said
26 subset are humanized.

1 Claim 5. The method for treating a patient suffering
2 from a cancerous disease in accordance with claim 1 wherein:
3 the cytotoxicity of said antibodies or fragments thereof
4 is mediated through antibody dependent cellular toxicity.

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6 Claim 6. The method for treating a patient suffering
7 from a cancerous disease in accordance with claim 1 wherein:
8 the cytotoxicity of said antibodies or fragments thereof
9 is mediated through complement dependent cellular toxicity.

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11 Claim 7. The method for treating a patient suffering
12 from a cancerous disease in accordance with claim 1 wherein:
13 the cytotoxicity of said antibodies or fragments thereof
14 is mediated through catalyzing of the hydrolysis of cellular
15 chemical bonds.

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17 Claim 8. The method for treating a patient suffering
18 from a cancerous disease in accordance with claim 1 wherein:
19 the cytotoxicity of said antibodies or fragments thereof
20 is mediated through producing an immune response against
21 putative cancer antigens residing on tumor cells.

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23 Claim 9. The method for treating a patient suffering
24 from a cancerous disease in accordance with claim 1 wherein:

1 the cytotoxicity of said antibodies or fragments thereof
2 is mediated through targeting of cell membrane proteins to
3 interfere with their function.

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5 Claim 10. The method for treating a patient suffering
6 from a cancerous disease in accordance with claim 1 wherein:
7 the cytotoxicity of said antibodies or fragments thereof
8 is mediated through production of a conformational change in
9 a cellular protein effective to produce a signal to initiate
10 cell-killing.

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12 Claim 11. The method for treating a patient suffering
13 from a cancerous disease in accordance with claim 1 wherein:
14 said method of production utilizes a tissue sample
15 containing cancerous and non-cancerous cells obtained from a
16 particular individual.

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18 Claim 12. A method for treating a patient suffering from
19 a cancerous disease comprising:
20 administering to said patient anti-cancer antibodies or
21 fragments thereof produced in accordance with a method for
22 the production of individually customized anti-cancer
23 antibodies which are useful in treating a cancerous disease,
24 said antibodies including a subset of antibodies or fragments
25 thereof characterized as being cytotoxic against cells of a

1 cancerous tissue, said subset being essentially benign to
2 non-cancerous cells;

3 wherein one or more antibodies or fragments thereof
4 selected from said subset are placed in admixture with a
5 pharmaceutically acceptable adjuvant and are administered in
6 an amount effective to mediate treatment of said cancerous
7 disease;

8 said one or more antibodies or fragments thereof
9 produced by a hybridoma cell line having an ATCC Accession
10 Number selected from the group consisting of () or
11 combinations thereof.

12

13 Claim 13. The method for treating a patient suffering
14 from a cancerous disease in accordance with claim 12, wherein
15 said one or more antibodies or fragments thereof selected
16 from said subset are humanized.

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18 Claim 14. The method for treating a patient suffering
19 from a cancerous disease in accordance with claim 12
20 comprising:

21 conjugating said subset of antibodies or fragments
22 thereof with a member selected from the group consisting of
23 toxins, enzymes, radioactive compounds, and hematogenous
24 cells; and

25 administering conjugated antibodies or fragments thereof
26 to said patient;

1 wherein said conjugated antibodies are placed in
2 admixture with a pharmaceutically acceptable adjuvant and are
3 administered in an amount effective to mediate treatment of
4 said cancerous disease.

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6 Claim 15. The method of claim 14, wherein said one or
7 more antibodies or fragments thereof selected from said
8 subset are humanized.

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10 Claim 16. The method for treating a patient suffering
11 from a cancerous disease in accordance with claim 12 wherein:
12 the cytotoxicity of said antibodies or fragments thereof
13 is mediated through antibody dependent cellular toxicity.

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15 Claim 17. The method for treating a patient suffering
16 from a cancerous disease in accordance with claim 12 wherein:
17 the cytotoxicity of said antibodies or fragments thereof
18 is mediated through complement dependent cellular toxicity.

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20 Claim 18. The method for treating a patient suffering
21 from a cancerous disease in accordance with claim 12 wherein:
22 the cytotoxicity of said antibodies or fragments thereof
23 is mediated through catalyzing of the hydrolysis of cellular
24 chemical bonds.

1 Claim 19. The method for treating a patient suffering
2 from a cancerous disease in accordance with claim 12 wherein:
3 the cytotoxicity of said antibodies or fragments thereof
4 is mediated through producing an immune response against
5 putative cancer antigens residing on tumor cells.

6
7 Claim 20. The method for treating a patient suffering
8 from a cancerous disease in accordance with claim 12 wherein:
9 the cytotoxicity of said antibodies or fragments thereof
10 is mediated through targeting of cell membrane proteins to
11 interfere with their function.

12
13 Claim 21. The method for treating a patient suffering
14 from a cancerous disease in accordance with claim 12 wherein:
15 the cytotoxicity of said antibodies or fragments thereof
16 is mediated through production of a conformational change in
17 a cellular protein effective to produce a signal to initiate
18 cell-killing.

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20 Claim 22. The method for treating a patient suffering
21 from a cancerous disease in accordance with claim 12 wherein:
22 said method of production utilizes a tissue sample
23 containing cancerous and non-cancerous cells obtained from a
24 particular individual.

Claim 23. Anti-cancer antibodies or fragments thereof selected from the group consisting of a 1LN-8, 4BD-1, a 4BD-3, a 4BD-6, a 4BD-9, a 4BD-13, a 4BD-18, a 4BD-20, a 4BD-25, a 4BD-26, a 4BD-27, a 4BD-28, a 4BD-32, a 4BD-37, a 4BD-50, a 6BD-1, a 6BD-3, a 6BD-5, a 6BD-11, a 6BD-25, a 7BD-7, a 7BD-12-1, a 7BD-12-2, a 7BD-13, a 7BD-14, a 7BD-19, a 7BD-21, a 7BD-24, a 7BD-29, a 7BD-30, a 7BD-31, a 7BDI-17, a 7BDI-58, a 7BDI-60, a 7BDI-62, a 5LAC2, a 5LAC4, a 5LAC20, a 5LAC23, a H460-1, a H460-4, a H460-5, a H460-10, a H460-14, a H460-16-1, a H460-16-2, a H460-23 and a H460-27 monoclonal antibody or combinations thereof.

Claim 24. Anti-cancer antibodies or fragments thereof produced by a hybridoma cell line having an ATCC Accession Number selected from the group consisting of ().

Claim 25. A binding assay to determine presence of cancerous

cells in a tissue sample selected from a tumor originating in colon, prostate, ovarian, lung, breast, or skin tissue comprising:

providing a tissue sample from a tumor originating in colon, prostate, ovarian, lung, breast, or skin tissue;

1 providing an isolated monoclonal antibody or antigen
2 binding fragment thereof encoded by the clone deposited with
3 the ATCC as Accession Number PTA-2700;
4 contacting said isolated monoclonal antibody or antigen
5 binding fragment thereof with said tissue sample; and
6 determining binding of said isolated monoclonal antibody
7 or antigen binding fragment thereof with said tissue sample;
8 whereby the presence of said cancerous cells in said
9 tissue sample is indicated.

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11 Claim 26. A process of isolating or screening for
12 cancerous cells in a tissue sample selected from a tumor
13 originating in colon, prostate, ovarian, lung, breast, or
14 skin tissue comprising:

15 providing a tissue sample from a tumor originating in
16 colon, prostate, ovarian, lung, breast, or skin tissue;

17 providing an isolated monoclonal antibody or antigen
18 binding fragment thereof encoded by the clone deposited with
19 the ATCC as Accession Number PTA-2700;

20 contacting said isolated monoclonal antibody or antigen
21 binding fragment thereof with said tissue sample; and

22 determining binding of said isolated monoclonal antibody
23 or antigen binding fragment thereof with said tissue sample;

24 whereby said cancerous cells are isolated by said
25 binding and their presence in said tissue sample is
26 confirmed.